

Application No. 10/766,736
Filed: January 28, 2004
TC Art Unit: 1725
Confirmation No.: 3473

THE CLAIMS

1. (Currently Amended) An injection molding machine for low-melting point metallic material comprising:

an injection mechanism comprising a melting cylinder, an injection means and a driving device;

said melting cylinder having a supply port for a metal material disposed on an upper side of an intermediate portion, a metering chamber formed within ~~the~~ a tip portion, the metering chamber having a selected length in communication with a nozzle member;

said injection means comprising an injection rod disposed within the melting cylinder so as to advance and retreat freely, and an injection plunger attached to a tip of the injection rod, the injection plunger being inserted into the metering chamber ~~slidable~~ freely slidable; and

said driving device disposed on a rear end of the melting cylinder for driving said injection means so as to advance or retreat;

a pedestal supporting said injection mechanism obliquely with the nozzle member directed downwardly to a mold clamping mechanism, the pedestal provided on an upper surface of a base so as to advance and retreat freely;

wherein;

a nozzle touch block is provided on a tip end portion of the pedestal and touched by said nozzle member obliquely;

a frame is provided on a rear portion of the pedestal and ~~supporting~~ supports a rear portion of said injection mechanism and the driving device obliquely;

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a nozzle touch device is provided for nozzle touching an injection nozzle attached to the front of the nozzle touch block to a mold in the mold clamping mechanism by moving the pedestal with said injection mechanism toward the mold clamping mechanism.

2. (Currently Amended) The injection molding machine for low-melting point metallic material according to claim 1, wherein said injection plunger ~~having~~ has an external diameter insertable into the metering chamber, wherein the metering chamber ~~having~~ has a diameter smaller than an inner diameter of the melting cylinder, with a clearance for sliding, and a sealing ring provided on an outer periphery of a tip portion of the injection plunger to prevent reverse flow of molten metal at injection.

3. (Original) The injection molding machine for low-melting point metallic material according to claim 1, wherein said driving device for said injection means comprises a hydraulic cylinder unitarily coupled by a tie bar to said melting cylinder spaced an interval from the rear end of said melting cylinder, wherein a nozzle touch device for nozzle touching said nozzle member to said nozzle touch block is provided across the side of the hydraulic cylinder and an upper tip portion of said pedestal.

4. (Original) The injection molding machine for low-melting point metallic material according to claim 1, wherein said nozzle touch block comprises;

an upper side of said nozzle touch block formed as an inclined rear surface for nozzle touching with the nozzle member of said injection mechanism;

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a gate formed on said inclined rear surface; and
a hot runner formed within the nozzle touch block connecting
said gate and said injection nozzle.

5. (Currently Amended) The injection molding machine for low-melting point metallic material according to claim 1, wherein said frame ~~having~~ has an upper surface inclined in an inward direction and installed on a seat on the rear end of the pedestal so as to swivel freely, and a support shaft provided on both sides of said inclined upper surface, wherein the rear portion of said injection mechanism and the driving device of said injection means are supported ~~movable~~ movably by said support shaft.

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